

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2005/000317

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F28F 3/08, F28F 13/08 // F28F 13/06  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F28D, F28F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2054817 A (THE A.P.V. COMPANY LIMITED), 18 February 1981 (18.02.1981) --	
A	SE 415928 B (ALFA-LAVAL AB), 10 November 1980 (10.11.1980) --	
A	SE 514326 C2 (APV HEAT EXCHANGER AS), 12 February 2001 (12.02.2001) --	

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 23 May 2005	Date of mailing of the international search report 03 -06- 2005
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Annette Riedel / JA A Telephone No. +46 8 782 25 00

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2005/000317

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACT OF JAPAN vol. 0186, no. 33 (M-1714), 2 December 1994 (1994-12-02) &amp; JP 6241672 A (HISAKA WORKS LTD), 2 September 1994 (1994-09-02) abstract</p> <p>--</p>	
A	<p>PATENT ABSTRACT OF JAPAN 1996, no. 02, 29 February 1996 (1996-02-29) &amp; JP 7260385 A (HISAKA WORKS LTD), 13 October 1995 (1995-10-13) abstract</p> <p>--</p>	
A	<p>SE 470339 B (ALFA-LAVAL THERMAL AB), 24 January 1994 (24.01.1994)</p> <p>--</p>	
A	<p>WO 8502670 A1 (ALFA-LAVAL THERMAL AB), 20 June 1985 (20.06.1985)</p> <p>--</p>	
A	<p>GB 1357282 A (ALFA LAVAL AKTIEBOLAG), 19 June 1974 (19.06.1974)</p> <p>--</p>	
A	<p>US 4781248 A (PFEIFFER), 1 November 1988 (01.11.1988)</p> <p>--</p>	
A	<p>US 4749032 A (ROSMAN ET AL), 7 June 1988 (07.06.1988)</p> <p>-- -----</p>	

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2005/000317

GB	2054817	A	18/02/1981	NONE		
SE	415928	B	10/11/1980	DE	3065095 D	00/00/0000
				DK	546479 A	18/07/1980
				EP	0014066 A,B	06/08/1980
				JP	55096893 A	23/07/1980
				SE	7900410 A	18/07/1980
				US	4630674 A	23/12/1986
SE	514326	C2	12/02/2001	DE	19900629 A	15/07/1999
				DK	2798 A	13/07/1999
				DK	174409 B	17/02/2003
				JP	11248391 A	07/09/1999
				SE	9900052 A	13/07/1999
				US	6073687 A	13/06/2000
SE	470339	B	24/01/1994	AT	159584 T	15/11/1997
				CZ	290014 B	15/05/2002
				CZ	9402950 A	12/04/1995
				DE	69314788 D,T	19/02/1998
				EP	0643820 A,B	22/03/1995
				FI	107962 B	00/00/0000
				FI	945789 A	09/12/1994
				JP	3354934 B	09/12/2002
				JP	7508581 T	21/09/1995
				PL	171856 B	30/06/1997
				RU	2110030 C	27/04/1998
				SE	9201825 D	00/00/0000
				SE	9202057 A	13/12/1993
				US	5531269 A	02/07/1996
				WO	9325860 A	23/12/1993
WO	8502670	A1	20/06/1985	AT	28511 T	15/08/1987
				BR	8407210 A	26/11/1985
				DE	3464961 D	00/00/0000
				DK	359285 A	07/08/1985
				EP	0164391 A,B	18/12/1985
				SE	0164391 T3	
				JP	61500626 T	03/04/1986
				NO	853123 A	07/10/1985
				SE	8306795 D	00/00/0000
GB	1357282	A	19/06/1974	DE	2207756 A,B,C	21/09/1972
				FR	2125471 A,B	29/09/1972
				IT	947614 B	30/05/1973
				JP	52000271 B	06/01/1977
				SE	353954 B	19/02/1973
				US	3783090 A	01/01/1974
US	4781248	A	01/11/1988	DE	3622316 C	28/01/1988
				EP	0252275 A	13/01/1988
				JP	63025494 A	02/02/1988

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2005/000317

US 4749032 A 07/06/1988

US 4347896 A 07/09/1982  
US 4503908 A 12/03/1985  
US 4523638 A 18/06/1985  
US 4535840 A 20/08/1985

---